

Remarks

The foregoing amendments and following remarks are responsive to the November 28, 2007 Office Action.

Status of the Claims

Claims 41, 43-48, 53-54 and 56-59 and 61-62 are pending. Claims 41, 54, 56 and 61-62 are amended to provide antecedent basis. Claim 45 is amended to clarify the invention. Support for the amendment to Claim 45 is found on page 8, lines 3-5; page 35, lines 17-26; page 36, lines 27-30; and page 38, lines 9-12 and 21-25 of the specification. No new matter is added.

Rejections under 35 U.S.C. § 112, first paragraph

Claims 41, 43-48, 53-54, 56, and 61-62 were rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. The Examiner alleges that the specification fails to describe a "fermentation broth" and an "active component".

The specification describes "fermentation broth" and "active component". With respect to the "fermentation broth", the Examiner's attention is directed to page 5, line 24, to page 8, line 5 of the specification. With respect to the "active component", the Examiner's attention is directed to page 2, line 23, to page 3, line 16 of the specification. Based on the disclosure, one of ordinary skill in the art would have been reasonably able to ascertain what is included in the fermentation broth with a reasonable degree of certainty. Therefore, in contrast to the Examiner's allegation, the specification complies with the written description requirement. In view of the foregoing, the Examiner is respectfully requested to reconsider, and withdraw the rejection.

Rejections under 35 U.S.C. § 112, second paragraph

Claims 41, 43-48, 53-54, 56 and 61-62 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. The Examiner alleges that the metes and

bounds of Claims 41 and 56 are vague and indefinite with regard to the recitation of "providing a fermentation broth" and "inoculating the fermentation broth".

The rejection under the second paragraph of 35 U.S.C. § 112 appears to stem from the rejection under the first paragraph of 35 U.S.C. § 112, which Applicants believe should be withdrawn for reasons set forth above, since the specification adequately describes the fermentation broth. The Examiner has not established that one of ordinary skill in the art would not have been reasonably able to ascertain what is included in the fermentation broth with a reasonable degree of certainty. In addition, one skilled in the art of fermentation would know what a fermentation broth contains, and would also understand that the fermentation broth also contains rice plant constituents, rice plant extracts, and mixtures thereof, as in Claims 41 and 56. Therefore, the term "fermentation broth" does not need to be further defined in the claims. Accordingly, the Examiner is respectfully requested to reconsider, and withdraw the rejection.

The Examiner further objects to the term "extract" because the term allegedly does not adequately delineate its metes and bounds. The Examiner further alleges that an "extract" is only defined by the process of its preparation, and deems the extract to be critical or essential to the invention.

In contrast to the Examiner's allegation, the extract is not necessarily critical or essential to the invention. The extract or a plant constituent may be included in the fermentation broth. The invention includes a combination of steps, which includes inoculating the fermentation broth with at least one *Lactobacillus*, at least one *Lactococcus*, at least one *Leuconostoc*, and at least one yeast, as in Claims 41 and 56. Therefore, in view of the foregoing, the Examiner is respectfully requested to reconsider, and withdraw the rejection.

The Examiner objected to the recitation of "rice plant extract" in Claims 41 and 56, and suggested that the Latin genus-species name be added to the claims. The Examiner correctly asserts that the use of common names is permissible in patent applications. The Latin genus-species name, however, is not required in non-plant

patent applications. Therefore, the claims have not been amended. Accordingly, the Examiner is respectfully requested to reconsider, and withdraw the rejection.

The remaining rejections of the claims have been addressed by amending the claims as suggested by the Examiner. Reconsideration and withdrawal of the rejections are respectfully requested.

Rejections under 35 U.S.C. § 103(a)

Claims 41, 43-48, 53-54, 56 and 61-62 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Publication No. 2004/0052759 (Sawaki) in view of U.S. Patent Publication No. 2001/0041203 (Uno) and U.S. Patent No. 7,090,875 (Miyazaki), further in view of U.S. Patent No. 5,618,723 (Klaenhammer). Claim 41 (from which Claims 43-48, 53-54, 57, 59 and 61 depend) and Claim 56 (from which Claims 58 and 61 depend) are amended to clarify the invention.

Sawaki relates to cosmetics containing an active compound obtained by fermenting rice with lactic acid bacteria. The rice may be fermented substantially in the absence of sodium chloride. Any type of rice may be used. The lactic acid bacteria include *Lactobacillus plantarum*, *Lactobacillus brevis*, *Lactobacillus casei* and *Streptococcus faecalis*.

Uno relates to a method for removing off-flavor from foods, which includes adding, to a food, a polymer of phenol compounds having a styrene structure. Example 4 of Uno describes the fermentation of rice with yeast and lactic acid, followed by the addition of alpha-amylase, glucoamylase, and hemicellulase, to obtain a saccharified rice liquor.

Miyazaki relates to a microorganism that reacts with a bean extract to produce a fermented product. Numerous microorganisms are disclosed (col. 3, line 62, to col. 4, line 23), including three of the microorganisms of Claims 41 and 56, namely, *Lactobacillus*, *Lactococcus*, and *Leuconostoc*. Any of the numerous microorganisms may be combined with yeast extracts (col. 4, lines 42-46), and added to the bean extract prior to fermentation.

Klaenhammer relates to a method for making a recombinant bacterium for use in producing a fermentative culture that is resistant to a new bacteriophage. The bacteria used in the fermentation of dough formed from cereals (including rice) may include yeasts, and lactic acid bacteria of the genera *Lactobacillus*, *Lactococcus*, *Pediococcus*, and *Leuconostoc*.

None of the cited references discloses or teaches the specific combination of microorganisms comprising at least one *Lactobacillus*, at least one *Lactococcus*, at least one *Leuconostoc*, and at least one yeast. As correctly asserted by the Examiner, Sawaki does not teach the claimed pH, pretreatment, temperature, and separation method. In addition, the Examiner has correctly asserted that Sawaki does not teach that *Leuconostoc* and yeast are used in fermenting rice.

To support of the rejection, Uno is cited as teaching the steps of adding water and yeast to rice, heating at 90°C for 30 minutes, fermenting at 20°C for two days, and then filtering. To further support the rejection, Miyazaki is cited as teaching a fermented product prepared by microorganisms such as *Lactobacillus*, *Lactococcus*, and *Leuconostoc*, or by several strains in combination, at a pH of about 5.0-6.0 (col. 5, lines 50-55). To further support the rejection, Klaenhammer is cited as teaching that bacteria used in the fermentation include yeasts such as *Saccharomyces cerevisiae* and *Candida utilis*, and lactic acid bacteria of the genera *Lactobacillus*, *Lactococcus*, and *Leuconostoc* (col. 9, lines 42-48), and alleges that the combination of the four references, as indicated above, renders the invention obvious.

To support a conclusion of obviousness, either: (1) the references must expressly or impliedly suggest the claimed combination; or (2) the Examiner must present a convincing line of reasoning as to why a skilled worker would have found the claimed invention to have been obvious, in view of the teachings of the references.

With respect to Claims 41 and 56, no such express or implied teaching exists, either in Sawaki, Uno, Miyazaki, or Klaenhammer, or the combination thereof, to specifically select and combine at least one *Lactobacillus*, at least one *Lactococcus*, at least one *Leuconostoc*, and at least one yeast. Although Sawaki discloses *Lactobacillus* and rice, the addition of Uno (which discloses the fermentation of rice with

yeast and lactic acid), the addition of Miyazaki (which discloses numerous microorganisms, including *Lactobacillus*, *Lactococcus*, and *Leuconostoc*, but fails to disclose rice plants or rice extract), and the addition of Klaenhammer (which discloses bacteria including yeasts and lactic acid bacteria of the genera *Lactobacillus*, *Lactococcus*, *Pediococcus*, and *Leuconostoc*) does not lead one skilled in the art to select and to combine the components as claimed in Claims 41 and 56.

In addition, no convincing line of reasoning is provided by the Examiner as to why the combination would have been obvious. Instead, the Examiner has only cited references, each of which includes one or more components of Applicants' invention, and combined them in an effort to support the conclusion of obviousness using Applicants' claims as a guide. Without the benefit of Applicants' disclosure, it would not have been obvious for the skilled worker to selectively pick and choose among the cited references, to arrive at the particular combination of at least one *Lactobacillus*, at least one *Lactococcus*, at least one *Leuconostoc*, and at least one yeast, as in Claims 41 and 56, and arrive at the invention as claimed with any reasonable expectation of success.

The reason provided by the Examiner to support the allegation of obviousness is that one reading Klaenhammer would have been able to choose from a finite number of predictable solutions (choosing from three genera out of four). Although Klaenhammer discloses, in column 9, mixtures of various bacteria for the fermentation of: (1) milk (lines 12 and 19); (2) eggs (lines 23-24); (3) meat (line 29); and (4) vegetables (line 37), there is no disclosure by Klaenhammer to use a mixture of any of the *Lactobacillus*, *Lactococcus*, *Pediococcus*, or *Leuconostoc* in the fermentation of rice. Thus, the reason provided by the Examiner fails to adequately explain why one skilled in the art would have chosen among the various genera of Klaenhammer, or any of the individual references or the combination thereof, and arrived at the particular combination of at least one *Lactobacillus*, at least one *Lactococcus*, at least one *Leuconostoc*, and at least one yeast as in Claims 41 and 56, without the Applicants' claims as a guide.

Therefore, the alleged motivation or reason asserted by the Examiner does not lead one skilled in the art to specifically select and combine at least one *Lactobacillus*, at least one *Lactococcus*, at least one *Leuconostoc*, and at least one yeast, as in

Claims 41 and 56, and arrive at the invention with any reasonable expectation of success. The only apparent reason for combining the claimed components is based on Applicants' disclosure.

Since one skilled in the art at the time of the invention would not have found it obvious, after reading Sawaki, in view of Uno and Miyazaki, and further in view of Klaenhammer, to arrive at the invention without the benefit of Applicants' disclosure, the rejection should be withdrawn. Reconsideration and withdrawal of the rejection are respectfully requested.

Fees

No fees are believed due. The Commissioner is authorized, however, to charge any fees deemed due (or credit any balance owing) to Deposit Account No. 50-1177.

Conclusion

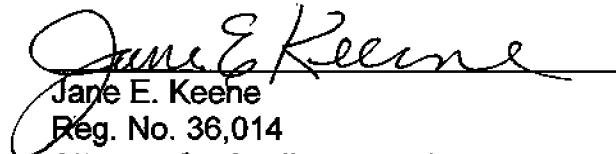
It is respectfully submitted that Claims 41, 43-48, 53-54 and 56-59 and 61-62 are in condition for allowance. A Notice of Allowance is respectfully requested. If anything further is needed to advance the allowance of this application, the Examiner is requested to contact Applicants' attorney at the telephone number indicated below.

Respectfully submitted,

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Date

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